Nevada Bureau of Mines and Geology SPECIAL PUBLICATION P-15

Major Mines of Nevada 2003

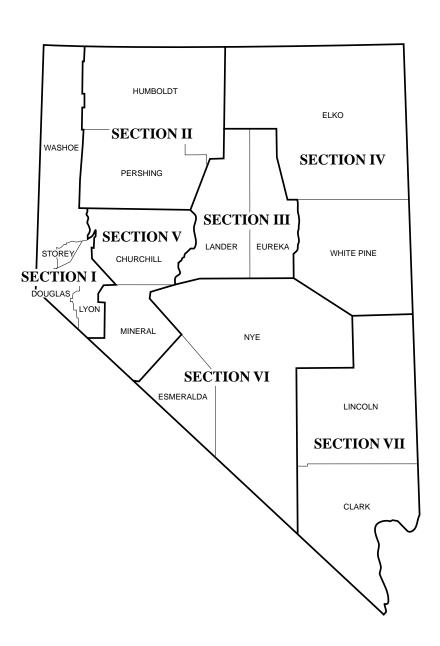
Mineral Industries in Nevada's Economy

By Doug Driesner and Alan Coyner The Nevada Division of Minerals

2004

This is the fifteenth of an annual series of summary reports on major mines of Nevada. Sand and gravel operations are not included. Information on employment and production for the calendar year 2003 was provided by the individual mine operators. The Nevada Division of Minerals maintains a complete register of Nevada mines. For further information, contact them at 400 W. King, Suite 106, Carson City, Nevada 89703 or call (775) 684-7040, fax (775) 684-7052, or visit their Web site at http://minerals.state.nv.us.





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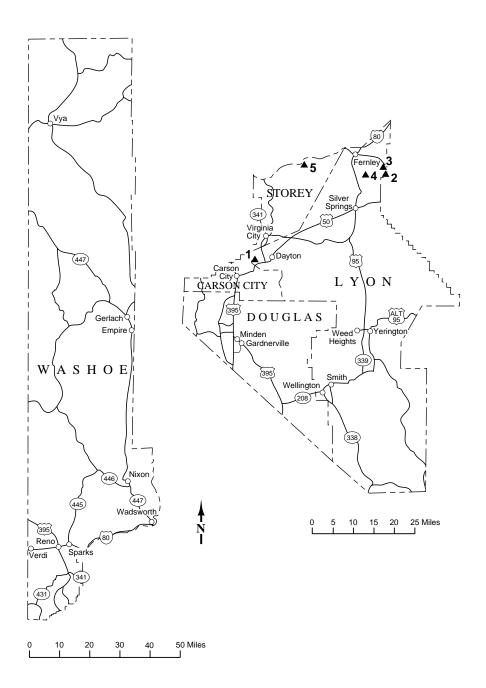
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Section I

Lyon County

Adams Claim Gypsum Mine (1)

Operator:

Art Wilson Co. P.O. Box 20160 Carson City, NV 89702-1160 775-882-0700 Fax: 882-0790 Company employees: 32 Contract employees: 20

Production:

Gypsum - 129,589 tons

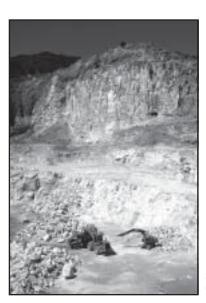
Celite Diatomite Mine (2)

Operator:

World Minerals, Inc. 100 Front Street Fernley, NV 89408 775-575-2536 Fax: 575-4857 Company employees: 17 Contract employees: 1

Production:

Diatomite



Hazen Pit (3)

Operator:

Eagle-Picher Filtration & Minerals, Inc. 640 Clark Station Rd. Sparks, NV 89434 775-824-7700 Fax: 824-7715 Production:

Production:
Diatomite

NCC Limestone Quarry (4)

Operator:

Nevada Cement Co. P.O. Box 840 Fernley, NV 89408 775-575-2281 Fax: 575-4387 Company employees: 120

Production:

Limestone/Clay

Storey County

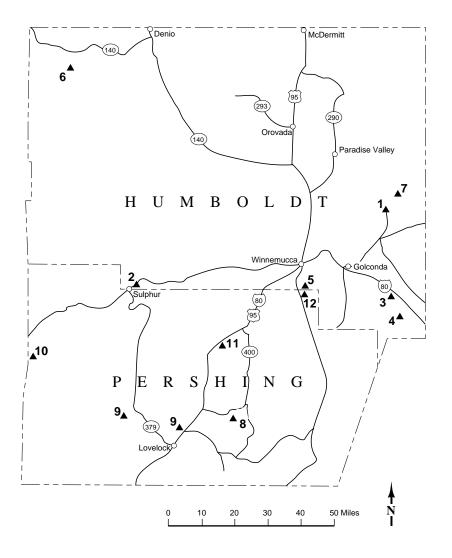
Clark Mine and Mill (5)

Operator:

Eagle-Picher Filtration Minerals, Inc. 640 Clark Station Rd. Sparks, NV 89434 775-824-7700 Fax: 824-7715 Company employees: 69 Production:

Diatomite

Adams Claim Gypsum Mine. (NDOM photo).





Blast at Twin Creeks Mine (NDOM photo).

Section II

Humboldt County

Getchell Underground and Turquoise Ridge Mines (1)

Operator:

Placer Dome U.S. Inc. HC 66 Box 220 Golconda, NV 89414

775-529-5001 Fax: 529-0753 Company employees: 215 Contract employees: 200

Production:

Gold - 93.337 oz

Hycroft Mine (2)

Operator:

Hycroft Resources & Dev., Inc. P.O. Box 3030 Winnemucca, NV 89446-5122 775-623-5260 Fax: 623-0215 Company employees: 4 Contract employees: 3

Production:

Gold - 644 oz Silver - 100 oz

Lone Tree Mine (3)

Operator:

Newmont Mining Corp. P.O. Box 388 Valmy, NV 89438 775-635-9000 Fax: 635-0111 Company employees: 450

Production:

Gold - 434,704 oz Silver - 80,094 oz

Marigold Mine (4)

Operator:

Glamis Gold Inc. P.O. Box 160 Valmy, NV 89438 775-635-2317 Fax: 635-2551 Company employees: 143

Production:

Gold - 142,100 oz Silver - 2.080 oz

MIN-AD Mine and Mill (5)

Operator:

MIN-AD, Inc.
P.O. Box 39
Winnemucca, NV 89446
775-623-5944 Fax: 623-9028
Company employees: 17
Contract employees: 4
Production:

Royal Peacock Opal Mine (6)

Operator:

Dolomite

Walter Wilson P.O. Box 165 Denio, NV 89404 775-941-0374

Production:

Precious opal

Twin Creeks Mine (7)

Operator:

Newmont Mining Corp.
P.O. Box 69
Golconda, NV 89414
775-623-4300 Fax: 635-4602
Company employees: 467
Production:

Gold - 697,607 oz Silver - 128,535 oz

Pershing County

Coeur Rochester Mine (8)

Operator:

Coeur d'Alene Mines Corp. P.O. Box 1057

Lovelock, NV 89419

775-273-7995 Fax: 273-7050 Company employees: 257

Production:

Gold - 52,363 oz Silver - 5,585,385 oz

Colado Mine and Plant (9)

Operator:

Eagle-Picher Filtration & Minerals, Inc. 150 Coal Canyon Road Lovelock, NV 89419 775-824-7540 Fax: 824-7582 Company employees: 124

Production:

Diatomite, Perlite

Empire Mine (10)

Operator:

United States Gypsum Co. P.O. Box 130 Empire, NV 89405 775-557-2341 Fax: 557-2212 Company employees: 145

Production:

Gypsum - 279,474 tons

Florida Canyon Mine (11)

Operator:

Florida Canyon Mining, Inc. P.O. Box 330

Imlay, NV 89418

775-538-7300 Fax: 538-7324 Company employees: 181 Contract employees: 5

Production:

Gold - 101,811 oz Silver - 60,065 oz

W. Glen Sexton Family Trust (12)

Operator:

Nutritional Additives Corp. 415 Wellington Street Winnemucca, NV 89445 775-623-1151 Fax: 623-1153 Company employees: 2

Production:

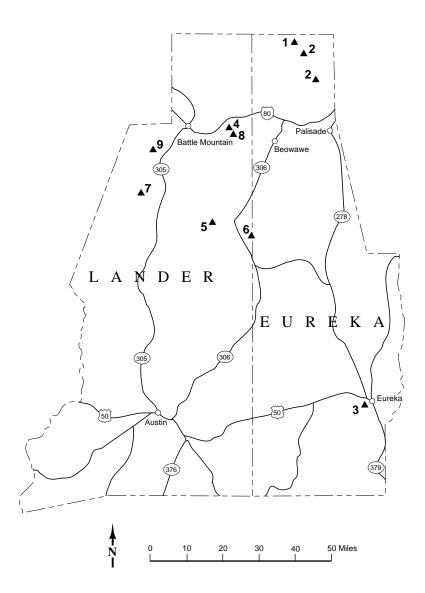
Dolomite



Rochester Mine (NDOM photo).



Colado plant (NDOM photo).



Section III

Eureka County

Betze-Post Mine (1)

Operator:

Barrick Goldstrike Mines, Inc. P.O. Box 29

Elko, NV 89803

775-738-8043 Fax: 738-6543

Company employees: 1,079

Production:

Gold - 1,559,401 oz Silver - 115,473 oz

Carlin Operations (2)

Operator:

Newmont Mining Corp.

P.O. Box 669

Carlin, NV 89822

775-778-4000 Fax: 778-4757 Company employees: 1,588

Production:

Gold - 1,087,427 oz Silver - 200,359 oz **Ruby Hill Mine (3)**

Operator:

Barrick Gold Corporation P.O. Box 676

Eureka. NV 89316

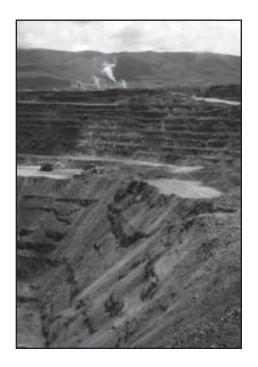
775-237-6060 Fax: 237-5408

Company employees: 14

Production:

Gold - 18,134 oz

Silver - 2,441 oz



Betze-Post Mine (NDOM photo).

Lander County

Argenta Mine and Mill (4)

Operator:

Baker Hughes INTEQ P.O. Box 277 Battle Mountain, NV 89820 775-635-5441 Fax: 635-5455 Company employees: 18

Shipped:

Barite - 60.678 tons

Battle Mountain Grinding Plant (Greystone Mine) (5)

Operator:

M-I Swaco P.O. Box 370 Battle Mountain, NV 89820 775-635-5135 Fax: 635-2191 Company employees: 63 Shipped: Barite - 257,164 tons

Cortez Gold Mines (6)

Operator:

Placer Dome U.S. Inc. HC66 Box 1250 Crescent Valley, NV 89821-1250 775-468-4400 Fax: 468-4496 Company employees: 402 Production:

Gold - 1,065,402 oz

McCoy/Cove Mine (7)

Operator:

Newmont Mining Corp. P.O. Box 1658 Battle Mountain, NV 89820 775-635-4923 Fax: 635-4921 Company employees: 26

Production:

Gold - 4.699 oz Silver - 706 oz

Mule Canyon Mine (8)

Operator:

Newmont Mining Corp. P.O. Box 388 Valmy, NV 89438 775-635-9000 Fax: 635-0111 Company employees: included with Lone Tree Mine

Production:

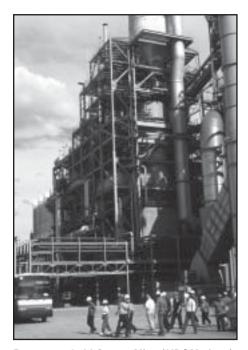
Gold - 8.086 oz Silver - 1.490 oz

Phoenix Project (9)

Gold - 5,444 oz Silver - 1,003 oz

Operator:

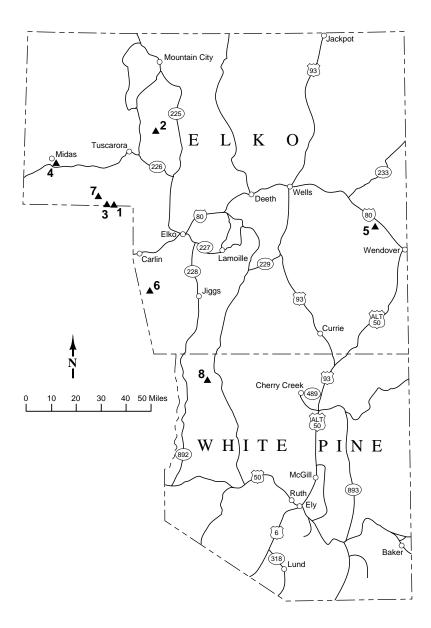
Newmont Mining Corp. P.O. Box 388 Valmy, NV 89438 775-635-9000 Fax: 635-0111 Production:



Roaster at Gold Quarry Mine (NDOM photo).



Newmont's Gold Quarry Mine (NDOM photo).



Section IV

Elko County

Capstone Mine (1)

Operator: Newmont Mining Corp. P.O. Box 669 Carlin, NV 89822 775-778-4000 Fax: 778-4757 Employees: included with Carlin Operations Production: Gold - 29.742 oz Silver - 5.480 oz

Jerritt Canyon Mine (2)

Operator:

Queenstake Resources USA. Inc. HC31 Box 78 Elko, NV 89801 775-738-5006 Fax: 758-9231 Company employees: 406 Production: Gold - 302.095 oz

Meikle Mine (3)

Operator: Barrick Goldstrike Mines, Inc.

P.O. Box 29 Elko, NV 89803 775-738-8043 Fax: 738-6543 Company employees: 527 Production: Gold - 551.664 oz Silver - 99.614 oz

Midas Mine (4)

Operator: Newmont Mining Corp. Operation, Inc. HC 66 Box 125 Midas, NV 89414 775-635-6423 Fax: 635-6460 Company employees: 170 Production:

Gold - 218,966 oz Silver - 2.647.374 oz

Pilot Peak Lime Plant (5)

Operator: Graymont Western U.S. P.O. Box 2520 West Wendover, NV 89883 775-483-5463 Fax: 483-5149 Company employees: 50 *Production:* Limestone, Quicklime, Hydrated lime

Rain Mine (6)

Operator: Newmont Mining Corp. P.O. Box 669 Carlin. NV 89822 775-778-4000 Fax: 778-4757 Employees: included with Carlin Operations Production: Gold - 5,039 oz Silver - 928 oz

Rossi Mine-Dunphy Mill (7)

Operator: Halliburton Energy Services/BAROID 912 Dunphy Ranch Rd.

Battle Mountain, NV 89820 775-468-0515 Fax: 468-2060 Company employee: 37 Contract employees: 6 Shipped: Barite - 147.000 tons

White Pine County

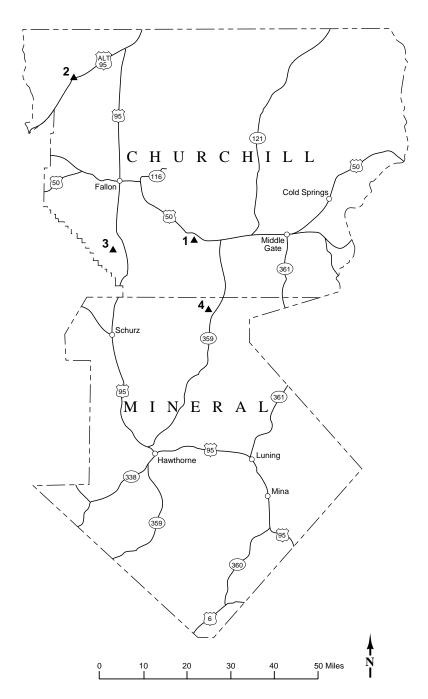
Bald Mountain Mine (8)

Operator: Placer Dome U.S. Inc. P.O. Box 2706 Elko, NV 89803 775-237-7100 Fax: 237-7101 Company employees: 107 Contract employees: 19

Production: Gold - 90.602 oz. Silver - 26,810 oz



Air conditioner at Meikle Mine (NDOM photo).



Section V

Churchill County

Huck Salt (1)

Operator:

Huck Salt & Sons, Inc. 5033 Austin Hwy. Fallon, NV 89406 775-423-2055 Fax: 423-0467

Company employees: 4

Production:

Salt - 9,054 tons

Moltan Company (2)

Operator:

Moltan Company LP P.O. Box 860 Fernley, NV 89408 775-423-6668 Fax: 423-6411 Company employees: 50

Production:
Diatomite

Popcorn Perlite Mine (3)

Operator:

Eagle-Picher Filtration & Minerals, Inc. 640 Clark Station Rd. Sparks, NV 89434 775-824-7700 Fax: 824-7715

Production:

Perlite

Mineral County

Denton-Rawhide Mine (4)

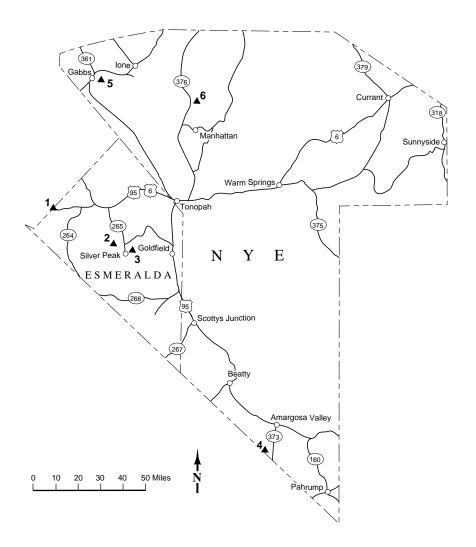
Operator:

Kennecott Rawhide Mining Co. P.O. Box 2070 Fallon, NV 89407 775-945-1015 Fax: 945-1213

Company employees: 21 Contract employees: 2

Production:

Gold - 63,283 oz Silver - 525,809 oz



Section VI

Esmeralda County

Grefco Minerals (1)

Operator:

Grefco Minerals, Inc. P.O. Box 288 Mina, NV 89422

775-573-2422 Fax: 573-2422 Company employees: 18

Production:

Diatomite

Mineral Ridge Mine (2)

Operator:

Golden Phoenix Minerals, Inc. P.O. Box 67 Silverpeak, NV 89047-0067 775-482-4406 Fax: 482-4036 Company employees: 26

Contract employees: 1

Production:

Gold - 675 oz Silver - 704 oz

Silver Peak Operations (3)

Operator:

Chemetall Foote Corp.
P.O. Box 98
Silver Peak, NV 89047
775-937-2222 Fax: 937-2250
Company employees: 48
Contract employees: 8

Production:

Lithium compounds

Nye County

IMV Nevada (4)

Operator:

Mud Camp Mining Co. LLC dba IMV Nevada Route Box 549 Amargosa Valley, NV 89020 775-372-5341 Fax: 372-5640 Company employees: 29

Production:

Specialty clays - 33,223 tons

Premier Chemicals (5)

Operator:

Premier Chemicals, LLC P.O. Box 177 Gabbs, NV 89409 775-285-2601 Fax: 285-4030 Company employees: 80

Production:

Magnesium compounds

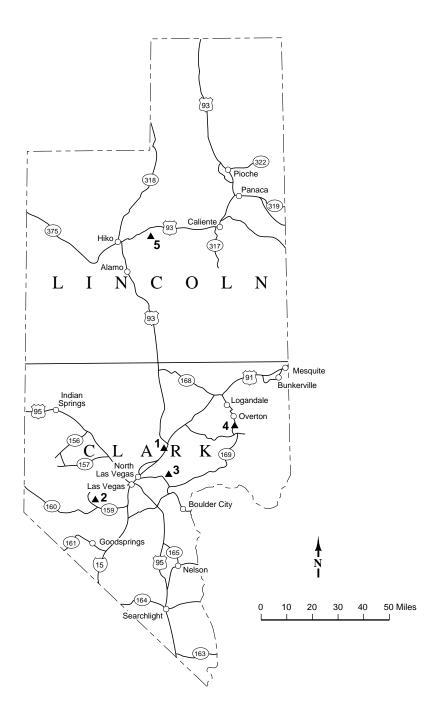
Smoky Valley Common Operation (6)

Operator:

Round Mountain Gold Corp. P.O. Box 480 Round Mountain, NV 89045-0480 775-377-2366 Fax: 377-3224 Company employees: 628 Contract employees: 27

Production:

Gold - 784,587 oz Silver - 761,333 oz



Section VII

Clark County

Apex Quarry and Plant (1)

Operator:

Chemical Lime Co. P.O. Box 3609 North Las Vegas, NV 89036

702-643-7702 Fax: 643-9517 Company employees: 110

Production:

Limestone, lime

BPB Gypsum, Inc. (2)

Operator:

BPB Gypsum, Inc. HCR 89033, Box 2900 Las Vegas, NV 89124 702-875-4111 Fax: 875-4213 Company employees: 106 Production:

Gypsum - 565,097 tons

PABCO Gypsum (3)

Operator:

PABCO Building Products, LLC 1973 N. Nellis Blvd. #328 Las Vegas, NV 89115 702-643-1016 Fax: 643-6249 Company employees: 120

Production:

Gypsum - 1,131,098 tons

Simplot Silica Products (4)

Operator:

Simplot Industries P.O. Box 308 Overton, NV 89040 702-397-2667 Fax: 397-2798 Company employees: 43

Production:

Silica sand - 675,000 tons

Lincoln County

Tenacity Perlite Mine and Mill (5)

Operator:

Wilkin Mining & Trucking, Inc. P.O. Box 829 Panaca, NV 89042

775-728-4463 Company employees: 10

Production:

Perlite

SUMMARY OF 2003 PRODUCTION

Gypsum 2,105,000 tons Limestone ** Lithium carbonate ** Magnesium oxide ** Mercury no report Perlite ** Precious opal ** Salt 9,000 tons Silica sand 675,000 tons	Silver Barite (shipped) Copper Diatomite	10,246,000 465,000 0 **	
Mercury no report Perlite ** Precious opal ** Salt 9,000 tons Silica sand 675,000 tons	Gypsum Limestone	2,105,000	tons
Salt 9,000 tons Silica sand 675,000 tons	Mercury Perlite	no report	
	Salt Silica sand	675,000	tons

^{*}Includes production from smaller mines not listed in this report.



Pipeline Mine (NDOM photo).

^{**}Proprietary information.

Economic Impacts of Mining in Nevada—2003

The Nevada mineral industry led the nation in 2003 in the production of gold, silver, and barite as it has for several years. Nevada also produced a wide variety of other mineral and energy commodities such as aggregates, diatomite, dolomite, geothermal energy, gypsum, lapidary and gem stones, lime and limestone, lithium compounds, magnesium compounds, oil, perlite, potassium sulfate, salt, silica, and specialty aggregates and clays. The total value of Nevada's mineral production in 2003 was about \$3.0 billion (not counting oil and geothermal energy). The production of precious metals accounted for about \$2.7 billion.

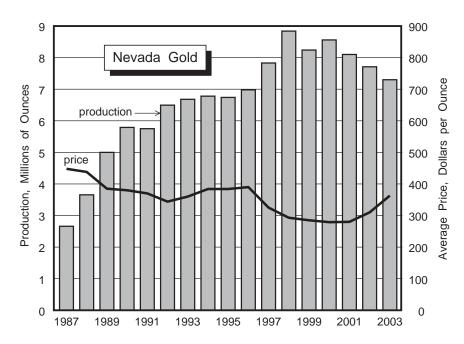
Production Highlights

Nevada's gold production was 7,318,000 troy ounces in 2003. This is lower than the 7,732,000 ounces produced in 2002, but still enough to make Nevada the third largest producer of gold in the world behind only South Africa and Australia. Underground operations contributed about 20% of the gold

production in 2003. Silver production dropped to 10,246,000 troy ounces, compared to the 2002 production of 13,564,000 ounces. Gypsum production was 2.1 million tons, and barite production was 465,000 tons, both up from their 2002 levels.

Employment

According to the Nevada Department of Employment, Training, and Rehabilitation. the Nevada mining industry employed an average of 8,776 employees during 2003. The average pay for mineral industry employees during this time was \$63,059 per year, the highest average of any employment sector in the state. addition, it is estimated that there are about 44,000 jobs in the state relating to providing goods and services needed by the mining industry. Mining employment dropped for the fifth year in a row due primarily to the planned closure of some precious metal mines, as well as increased efficiency at many operations.



Taxes and Other Impacts

The taxes paid by the mining industry to state and local government include property taxes, sales and use tax, and unique to the mining industry, net proceeds of minerals tax. Based on information from the Nevada Department of Taxation, the amount of net proceeds of minerals tax paid in 2003 was \$38.8 million, with \$20.1 million going to the counties, and \$18.7 million going to the state. Based on preliminary industry surveys, the sales and use taxes paid by the mining industry were \$40.2 million and the property taxes paid were \$18.5 million.

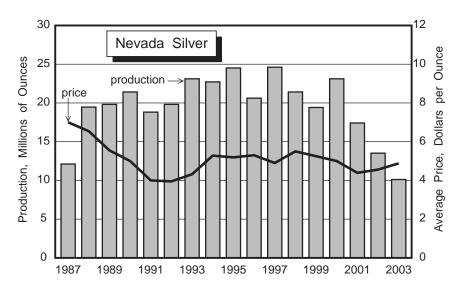
Permitting and Reclamation

Before mining can take place, plans of operation must be submitted and permits must be obtained from federal and state agencies to ensure that other resources such as wildlife, air, and water are protected. Nevada and federal laws and regulations require that lands disturbed by mining activities must be rehabilitated so they can be used for other purposes once mining is completed. This process, called reclamation, returns mined areas to other productive uses such as livestock grazing, wildlife habitat, or new industrial

applications. To ensure that reclamation is done, mine operators are required to post reclamation bonds that are held by government agencies. The bonds are released only after the mined area is stabilized and the reclamation goals have been met. According to the Nevada Division of Environmental Protection, approximately \$560 million in reclamation bonds are currently posted. Mine operators are proud of their efforts and are constantly seeking ways to enhance their reclamation technology.

Gold Reserves

Nevada's reported gold reserves at or near currently operating mines that can be mined at a profit under current economic conditions stood at about 66 million troy ounces at the end of 2003. The amount of reserves is always in a state of flux, due to some reserves being lost to production, additions to reserves through new discoveries, and changing economic conditions. Even though 7.3 million ounces of gold were produced in 2003, statewide reserves are up by 2 million ounces from the 64 million ounces reported for the end of 2002. The price of gold and the cost of production are the main factors in



determining whether a reserve is really a reserve or just a sub-economic resource. Extensive gold resources, not currently economic, exist at or near many operations. An increase in the gold price would mean many companies would be able to reclassify their resources back into reserve category. An increase in the cost of regulatory compliance has the same effect as a lowering of the gold price, thus increasingly complex and expensive regulations can reduce reserves. Under current conditions, the existing proven reserves are sufficient to sustain gold production at current levels for over 9 years.

Exploration

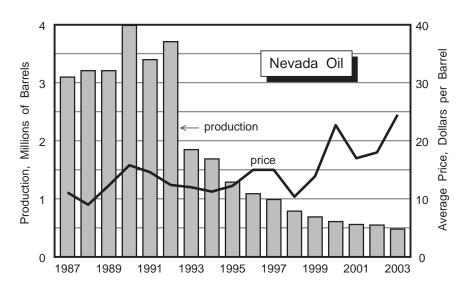
Exploration for new deposits, particularly gold, is an ongoing effort by both the producing companies and many others who do not operate mines in the state. Each year, the Division of Minerals conducts an exploration survey to determine the level of exploration activity and the factors that are responsible for those levels. The respondents to the latest survey indicated they spent \$62.9 million on exploration in Nevada in 2003 and projected spending \$89.1 million in 2004. The respondents reported having 126 geologists on the

payroll in 2003 and projected an increase to 158 in 2004. Exploration geologists and the drillers, assayers, and others who support their activities represent a significant positive economic impact, particularly in Nevada's rural areas.

Minerals Other Than Gold and Silver

Minerals other than gold and silver are also important to Nevada's economy. Sand, gravel, and crushed stone are critical to the building requirements of the state's infrastructure and are second only to gold in terms of dollar value. Industrial minerals such as barite, diatomite, dolomite, gypsum, limestone, lithium compounds, magnesite, perlite, salt, and specialty clays are produced in this state.

Oil and gas exploration and production are relatively minor when compared to mining, but are nonetheless important to the economy of east-central Nevada. In oil field terms, Nevada is considered a frontier, meaning its potential is yet to be realized. Oil production in 2003 was about 493,330 barrels (42 gallons per barrel). According to the Nevada Department of Taxation, the actual gross proceeds for oil in 2003 were \$12.1 million, thus the average calculated value for Nevada oil was \$24.54 per barrel.



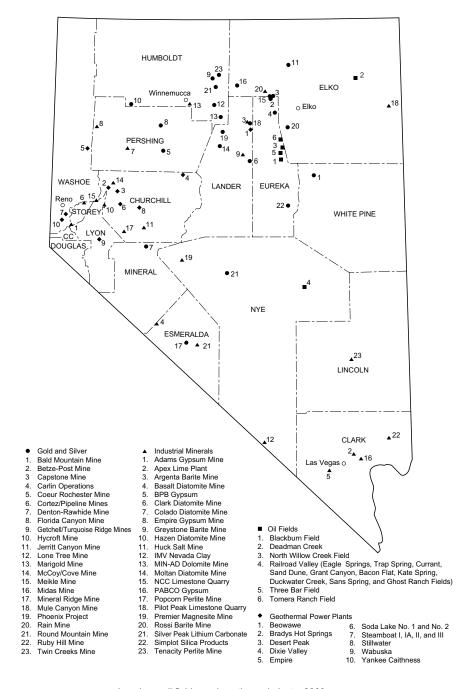
Nevada is rich in geothermal resources and is second only to California in the production of geothermal power. Currently, Nevada has 14 plants at 10 locations that sold approximately 1.2 million megawatthours of electricity in 2003. This is enough to power about 74,000 typical homes. Geothermal heat is also used for a variety of commercial, domestic, and public applications in Nevada. Mining and aquaculture are among the beneficiaries of geothermal heat. Schools in Elko County and homes and commercial buildings in Lincoln and Washoe Counties are examples of public and private facilities using this renewable energy source.

Conclusion

Nevada's mineral industry continued to be a major economic force in the state in 2003. This situation should continue for many years to come. Challenges will exist, as they always have, but Nevada's mineral reserves and the potential to add to them will spur the creativity of the mineral industry. Prices of many mineral commodities have improved in recent years, allowing companies to increase their exploration and development efforts. The continued development of new projects will assure that the mining industry will remain strong in the future.



Fossil fish. (Nevada stickleback, *Gasterosteus doryssus*) in diatomite, Hazen Pit, Churchill County, Nevada (*photo by Jon Price*).



Major mines, oil fields, and geothermal plants, 2003.

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